MANUFACTURES

Basketry

4/15 Baskets are the most important domestic utensils. A dozen or so may be found in each household; two or three burden baskets, half a dozen trays holding foodstuffs, one or two parching trays, a water bottle or two, and in the old days, boiling baskets. Basketry is entirely women's 285 476 work, to which they devote most of their spare time, particularly the long midday period when household duties are light. Wherever women [462] gather, basketry may be seen; the hostess working at her products, the

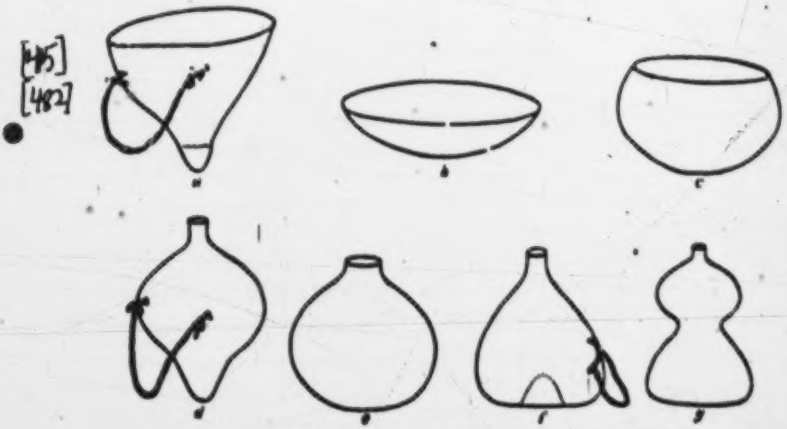

Fig. 6 *a* (50.2-1634), *b* (50.2-1631), *c* (50.2-1230), *d* (50.2-1237), *f* (50.2-1643), *g* (50.2 1645). Havasupai Basketry Forms, *a*, Burden basket; *b*, Tray; *c*, Boiling Basket; *d-g*, Water bottles.

guests plucking and preparing twigs from the nearby bushes, or more commonly helping the hostess at such tasks. Women do not usually 285 carry their unfinished wares further than a neighbor's camp; not even the coiled baskets which are worked on only intermittently and regarded much as our women do embroidery. Twined baskets are worked on more consecutively; a tray basket, depending on its size, may be completed in a few days; a burden basket is worked at off and on for a month. They consider twining hard work because continual pulling at the stiff wefts bruises the fingers badly. Expertness is recognized and prized; a few women are widely acknowledged as preëminent.

[text continues on p. 127]

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

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Fig. 7 (50.2-1634, 1235). Burden Baskets.

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

Six types (Fig. 6) are recognized: burden baskets (*gdôô'k*), water bottles (*sdwd*), shallow bowls or trays in twine (*gdôô'á"*) and coil (*gd'á"*) stone-boiling bowls (*ha'uguĕtdû'mia*, water, something, boil) in both techniques, and parching trays (*gdôôu'ulatá*, lit. old twined tray). Burden baskets, water bottles, and parching trays are made with twine weave.

While the weaving is quite coarse and uneven, with the exception of a few coiled pieces, many of the baskets are surprisingly water-tight. However, most baskets for liquids are rendered tight with some sort of coating, mescal juice or cornmeal mush. Trays in which mush is placed soon become impervious; the mess is sometimes rubbed into the interstices with that end in view. Small water-tight trays are used as pannikins to drink from. Water bottles receive a heavy coating of piñon pitch as well as soapweed paste.

Burden baskets are conical; some have a slight reverse curve near the apex which produces a nipple effect (Fig. 7). Two loops to receive the carrying band are inserted in the side of the basket somewhat more than a third of the distance from the rim. After the basket is completed pressure is applied to make this side flat so that the basket will not roll from side to side on the back. These baskets are generally made in three sizes: that used by the women measures about 60 cm. in diameter at the mouth, and 45 cm. in height; a smaller size used by half-grown girls is about 50 cm. by 45 cm.; that of small girls about 35 cm. by 32 cm.

Trays are used to hold seeds, meal, fruit, mush, and a host of other foodstuffs (Fig. 8). Twined trays are roughly of two sizes, although the variation is considerable; 40 cm. in diameter by 9 cm. in depth, and a smaller size 30 cm. by 6 cm. Occasionally these are quite conical. Fewer coiled trays are made: these are about the same size. They are somewhat flatter on the bottom than the twined ware. Parching trays are simply old twined trays, as their name implies, which are given a protective facing. Only the larger size of tray is used for this purpose.

Stone-boiling disappeared years ago so that descriptions of the baskets used for this process are somewhat vague. Apparently they were the same size as trays but quite deep, really bowls. One basket said to resemble them is 38 cm. in diameter and 23 cm. deep, quite globular, with a mouth slightly smaller than the body (Fig. 9). Smaller coiled bowls, such as those now sold to tourists, may have been used for stone-boiling. Cushing figures a coiled boiling basket, bottle-shaped, with rounded base and wide mouth.[1]

[1](b), Fig. 503. This shows the bundle foundation which my informants denied was ever used.

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

There are several customary positions for sitting women. They usually sit on their crossed legs, the feet turned almost instep down (they kneel, cross ankles, and sit on their calves.) Or they kneel on one knee, then sit with that leg doubled under them, or the legs may be stretched straight forward, ankles crossed, when the back is against a support, or they may sit Turk fashion, the legs drawn up and crossed. The dress is pulled sharply back between the legs when sitting to avoid exposure. 516

Men's sitting positions are much more variable. Perhaps the commonest is similar to the women's usual mode. They also cross the legs Turk fashion, or lie half recumbent.[1]

Both sexes carry articles in the hand, never on the head as among the Pueblos. Men carry bulky articles by means of a carrying strap passing over the chest; women in their burden baskets, the strap of which crosses the forehead. 482

Left-handedness is as rare as in a group of normal whites: in 1921, three (two males and a female) were noted in 182 Indians. Should a pregnant woman use her left hand continually, the child will be left-handed. When the parents observe that the child begins to grasp with the left hand, they remonstrate and tie that arm across his abdomen. But this is no cure; he cries and the hand is freed. The right hand, literally "good hand" (*sŏlgahdnă*) is so called because it can be used at will. It is wrong to shake hands, or to hand an object to another, with the left. People feel uneasy; say it is not a good way. A handshake, using the left, is no confirmation of an agreement or assurance of friendship; it may cover deceit. 516 827 856 576

Gestures are not common. The lips are protruded to point out an object, but the extension of the lips and the frequency of their use is never as great as at Zuñi.[2] In pointing or describing a circuit at a distance, the loosely clenched hands are held as in shooting a bow, the right hand near the right shoulder, elbow raised outward, the left arm nearly at full length and slightly to the left of the body. Both hands then describe the arc together. 201 [171]

To signify, "all gone," "all washed away," the right palm is brushed slowly but forcefully forward on the upturned left palm and then up forward.

The gesture used to describe an arrow shot, as in a tale, is not the same as the actual release. The hands are put in position as in shooting

[1] Neither men nor women cross the knees when seated on chairs, etc., nor do they squat on their heels. The arms are not characteristically held akimbo, as are those of African natives. The feet are never used to assist in working.

[2] The Southern Ute also use the lips in pointing (Lowie, 6), 283.) [171]

2:Iliff Y-5 (ca. 1901) 1954 NT14 Plateau Yumans NT14
Havasupai

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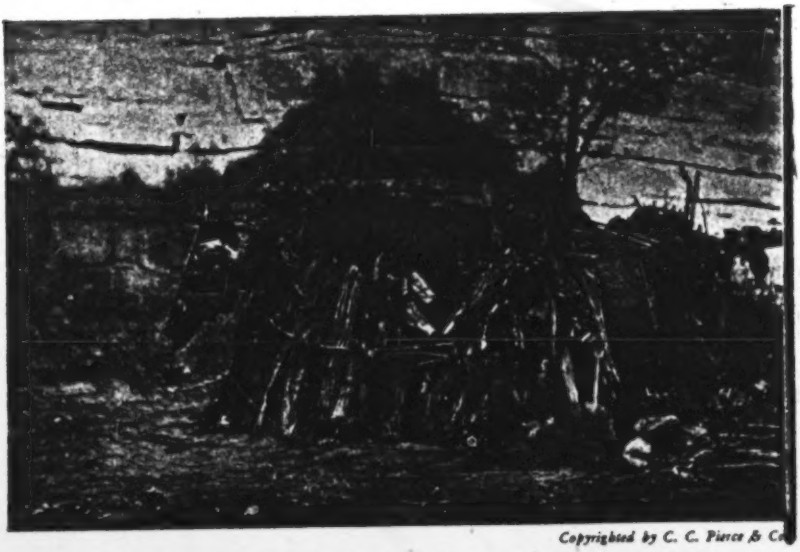

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The old basket weaver's home, built of poles, bark, brush and discarded clothing

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Mother carrying her baby in a burden basket. Her home is typical of the Havasupai house of a generation ago

[p. 116 N]

2:Iliff Y-5 (ca. 1901) 1954 NT14 Plateau Yumans NT14
Havasupai

While Eastern construction workers were harnessing Mooney Falls, this load of alfalfa would have brought the woman five dollars

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Mescal trimmed for the roasting pit. Stick is used to pry plant from the ground. Hatchet-like knife is used in trimming

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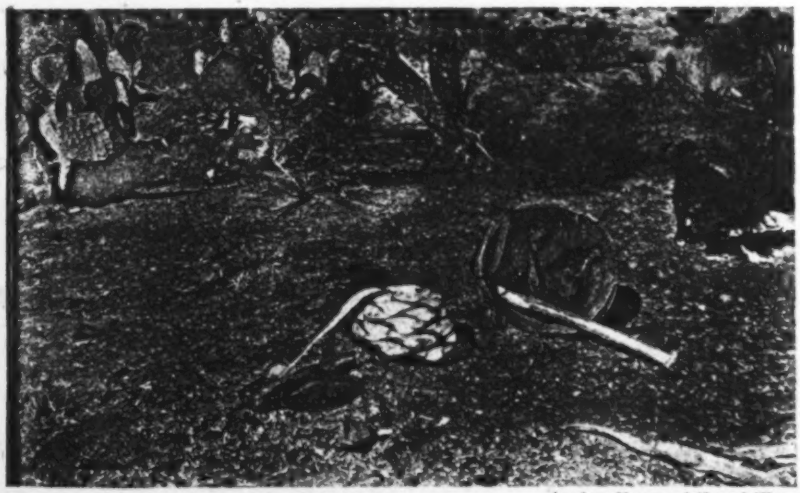

American Museum of Natural History

[p.1160]

2:Illiff Y-5 (ca.1901) 1954 NT14 Plateau Yumans NT14
Havasupai

648 forced to go? Who always went when the Indian had land that the white man coveted?

The white men had plenty of cash with which to allay the Havasupai's fears. They bought alfalfa from them for their horses, [482] paying five dollars for the load a woman could carry suspended from a strap across her forehead. They gave a silver dollar to those who posed for a picture. But this proved little compensation for the Indians, who could only stand by and watch as heavy machinery rumbled in along the widened Lee Canyon trail, and old Mooney began to lose her wild timbered beauty. This trail, these falls, everything here had belonged to the Havasupai since the day the gods had led them into the canyon. Lanoman, gray-faced and angry, went about his duties. The foreign men were desecrating the "Mother of the Waters," sacred to his wife and those other dead whose spirits could sometimes be seen rising and falling through the heavy spray.

The Indians feared these invaders as they had never feared the Yavapai or the Apache. They could meet the latter and deal with them as they deserved, but these white men—working like ants, building roads, making permanent improvements—had taken possession without need of battle. Mr. Ewing wrote that the contract had been negotiated in Washington; he was powerless to interfere. And in increasing numbers the white men continued to come.

The Havasupai recalled the story the Navaho had told them of how the white men had elbowed them out of their ancient home. When, in retaliation, they killed those who had stolen their hunting ground, the Great Father in Washington sent soldiers with fire-sticks, who punished the Navaho, and took the guilty to some far place.

648 175 The people again gave thought to the warning of the Chemehuevi Indian who had come to them as an evangelist, reminding them of the old ways and warning them of the penalties of forgetting the customs of their ancestors. Mr. James, in *Indians of the Painted Desert Region*, recorded the Chemehuevi's impassioned appeal to the Havasupai at a dance where an agent from

3:James T-5 (ca. 1900) 1903
NT14 Plateau Yumans NT14
Havasupai

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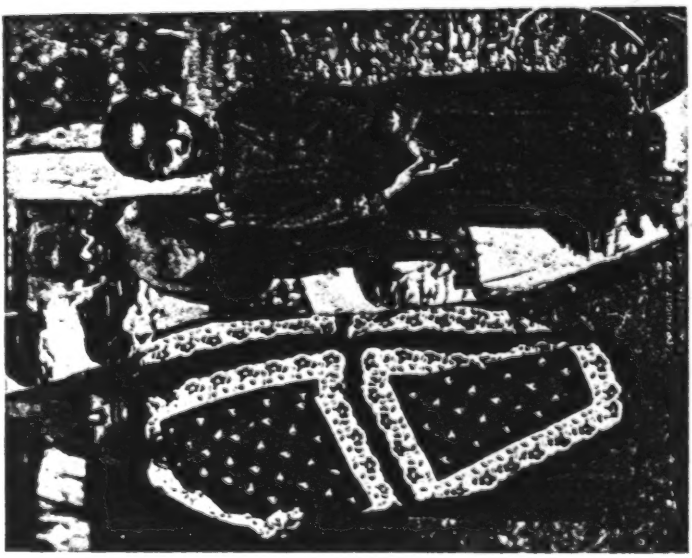

A Family Group of Havasupais.

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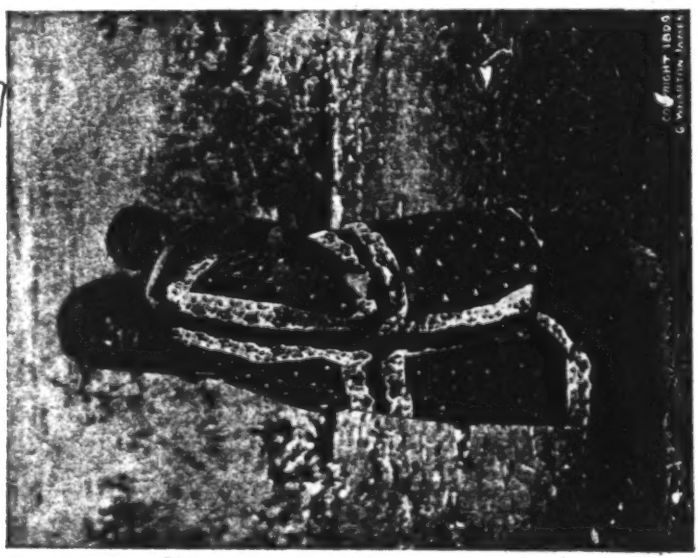

Havasupai Mother and Child.

[Facing p. 216]

3:James T-5 (ca. 1900) 1903

NT14 Plateau Yumans NT14

Havasupai

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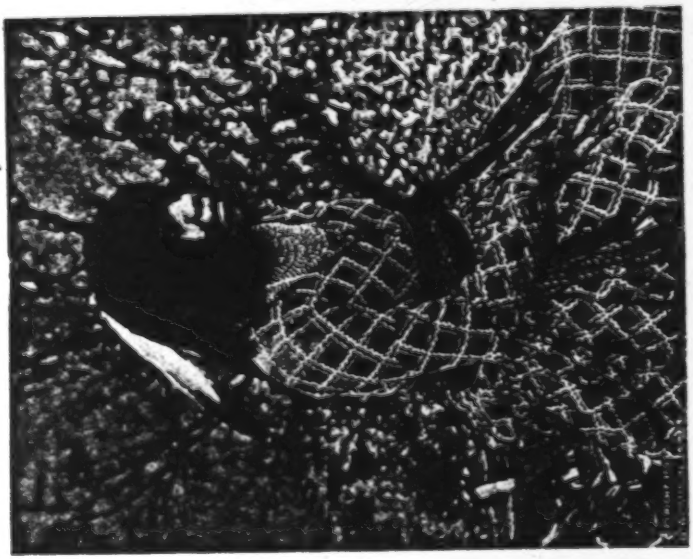

LAHOMAH'S WIFE. A HAVASUPAI.

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WALUTHANCA'S DAUGHTER, WITH EDUWA, GOING FOR WATER.

[FACING p. 230]

3:James T-5 (ca. 1900) 1903
NT14 Plateau Yumans NT14
Havasupai

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SINYELA, WITH ESUWA, GOING FOR WATER.

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ROCK JONES, LEADING MEDICINE MA[illegible]
HAVASUPAIS.

[FACING p. 256]

pick him up. By the time a baby is able to crawl to his mother, he will tug at her clothing when he wants to be fed. The accustomed expression of a contented baby as he plays alone, or is carried in a group of older children, is solemn, but the infant learns early to smile or laugh in response to other individuals. A baby or a young child, alone or in a group, plays quietly, seemingly reflecting the calm that prevails in the usual camp situation. The strident clamor of voice and the excited, helter-skelter pace of activity characteristic in the group play of white American children is conspicuously absent even among older Havasupai children. 854 854 857 152

Formerly, a mother took her baby along when she picked peaches or did other work not far from home. A conical burden basket was anchored to her back by a tumpline across her forehead or shoulders. With the baby on his cradle, she placed it in the burden basket facing away from her. The mother held the cradle upright with one hand extended over her shoulder. On the return trip, with the loaded burden basket on her back, she carried the baby's cradle in her arms. If the mother went away for a full day to gather wild foods, she usually left the baby at home with his father, grandmother, or older siblings. He was fed peach juice during her absence. The baby was never left alone. 854 [482]

At night an infant sleeps on his cradle near the mother, in his parents' bed, or on a separate bed within reach of the mother's hand. The earlier custom was to keep the baby in the cradleboard day and night, but babies are now removed from the cradle at frequent intervals. An infant may share his parents' bed until he is about a year old.

One mother summed up the use of the cradleboard thus:

"I put my baby in the cradle so he won't be spoiled by being held all the time. The cradle makes his body grow straight, and a cradleboard is easy to handle without tiring the mother or the baby. The baby can be taken anywhere without waking him, and he likes the cradle because it feels like someone is holding him. After my oldest boy could walk, he would bring his cradle to me and want to be in it. He was too tall then, but I would tie it on his back, and we all laughed while he walked around because he looked so funny. We said he looked like a beetle that way, but he didn't care. He just wanted the cradle." [856]

When a baby sucks his hands, they are laced inside the cradle, or moved away from his mouth, but nothing distasteful is put on them. It is said that hand-sucking is discouraged because the baby might carry some object to his mouth and choke to death. If an infant seems inclined toward lefthandedness, his left hand is tied inside the cradle while his right hand remains free. "The people in the old times didn't want their children to be left-handed, but some of them turned out like that anyway." Improvised toys such as dewclaw rattles (Spier 1928, 303), wooden beads, or a small spoon made from a mountain sheep's horn formerly were tied to the cradle 854 856 [826] 524 177

may be used, but whichever one is chosen is used both for body paint and for face designs. However, one woman insisted that ocher paint only was used at the menses, and that the red opuntia dye was reserved as a treatment for sunburn and the removal of freckles. In the latter connection it was explained that freckles may be caused by a female fetus during pregnancy and can be remedied by the above treatment. (One informant thought that her fellow tribeswomen were in error in their belief that sex of a child could be foretold by the appearance of such freckles, inasmuch as she herself had seen them appear during a pregnancy which resulted in birth of a boy.) 881 302 [757] [827] [843] [842]

Designs on a girl's face may consist of four vertical lines on each side of her nose, extending from her forehead to her jaw, the innermost lines passing the outer corners of her eyes. Vertical lines may be painted on a girl's cheeks, with a continuous line extending from her hairline down her nose to her chin. One pattern started with a line at the inner corners of the eyes extending outward across the cheeks, the smoothing motion used in executing this supposedly warding off wrinkles. These, or other facial designs used, are said to have no significance other than that customarily associated with the number four which is conspicuous in any grouping of lines or dots used. The body may be painted red completely from neck to foot, or lines may be drawn on arms from shoulder to wrist and on the front of thighs to the knee. 881 302 531 [801]

While it was stated that a menstruating girl should rise before sunup for her ceremonial washing and painting so she will be ready to run at sunrise, a discrepancy appears in that she is said to dry her hair in the sun. This suggests that, in practice, little attention is paid to the time certain actions should be performed, or to their sequence. 881 302 841

Running at Sunset and Sundown

At sunrise, a pubescent girl, already bathed, shampooed, painted, and attired in her puberty dress, runs toward the sunrise, and at sundown she runs toward the west to insure that she will be quick and unfailing in her work. As she runs she carries a slow match of cedar bark with which she touches her knees and elbows to prevent rheumatism in old age. On the three succeeding days, a girl is bathed, her hair is shampooed, and her body paint and face designs are reapplied. As on the first day, she runs to the east at dawn and to the west at sundown. Following this routine she gathers a bundle of wood and carries it to the camp of some woman who is exemplary in working so that she may attain this ideal. 881 [751] [372] [482]

Meanwhile, a girl's father has dug a shallow pit and constructed a temporary brush shade over it a short distance from the home camp. In the pit, which is about 4 ft. long and 1 ft. deep, a layer of rocks is placed with firewood. After being heated about an hour, the rocks are covered with earth and several layers of blankets to make a bed. When the girl has performed 881 843

relatives who stop by to tend the fire for warmth in winter, cook, bring food, or perform other small services. Some relative may visit at the camp for a few weeks or months, but such care is intermittent, and the unfortunate aged without children may suffer from neglect, especially if they are unable to move about or prepare food. 888 737

Two Observed Cases

A feeble woman of 86 years was observed daily during a period of three weeks while the investigator was interviewing the daughter with whom the old lady was living at the Grand Canyon Village.

She could hear well but was almost totally blind. Her face was a maze of loose wrinkles, the edges of her eyelids barely distinguishable among the other lines unless she partially opened her right eye, as she did occasionally. Her tangled grey hair straggled loosely about her face. On a pile of dirty rags, she sat or lay beside the campfire. On her frail, stooped figure she wore the same tattered, filthy dress, sweater, and machine-made moccasins during the entire three weeks and probably slept in these garments at night. She was never seen washing, and showed no evidence of having done so. [145] [515]

She was fed thin cornmeal soup and small portions of whatever the family had that she could swallow in her apparently toothless state. She drank her food from a saucepan or small granite bowl, using her fingers for more solid morsels. Her son-in-law had traded some red rock powder in Moenkopi for about $5 worth of piki bread, of which she was especially fond. She crumbled it in small pieces, scooped it up in both hands, and with head tilted back, emptied it into her mouth. [262] [415] [264]

The old woman was able to hobble about leaning upon a stick cane. To reach her toilet area she followed a mooring rope along the side of the tent in which her daughter's family lived, then followed a rope strung for her from a rear corner of the tent around some trees which removed her a little distance from the camp but not from sight. Once, when the old woman hobbled some distance from the camp gathering wood chips in a bag slung over her shoulder, she was guided back by her small grandson. Occasionally, she would wander off to visit a neighbor and would hobble around in circles until someone came to her rescue. On these occasions, the adults would call a child to her assistance and would keep shouting instructions to her and the youngster rather than themselves helping her unless no child was within calling distance. The children would lead her with a stick rather than touch her. Adults showed an equal distaste for personal contact with her, yet her toddling grandchildren were permitted to sit in her lap and her daughters-in-law readily placed their babies in her arms. [314] [482] [574]

4: Smithson E-5 (1951-1958) 1959 NT14 Plateau Yumans NT14
Havasupai

Fig. 17. Women weaving baskets. A. Coiling technique; a hole is punched with an awl. B. Weft element threaded around three-rod foundation in coiling technique. C. Beginning a basket to be woven in twining technique. D. Carrying position for burden basket may be with tumpline around bearer's head, as shown, or with tumpline across chest and shoulders. Women pictured are, in sequence, Edith Putesoy, Lina Iditicava, Mamie Chick (last two photographs).

THE HAVASUPAI

of the neck skin of the deer. The upper was a single piece of soft dressed skin, lapping at the outside of the foot, where it was fastened with a silver Navaho button. The woman's moccasin was a two-piece upper, a toe piece and a tongue in one, and long ankle flap which was worn around the ankle. The single tie string was wound over this and its loose end tucked under a fold. 291

Jewelry worn by the Havasupai is obtained in trade from the Navaho and Hopi or from the trader's stores at Grand Canyon. 301 439

Although the Havasupai relies mainly on his agricultural products, meat is a part of the diet the year round and especially during the winter. During the winter months rabbit drives are conducted by the men and boys. They drive in a straight course instead of drawing in a circle as several other tribes do. They claim their numbers are too few for a "surround". The rabbits are shot; never clubbed. Deer, antelope, mountain sheep, squirrels, and raccoons are also hunted. The hunt is still of economic importance as a supplementary source of food. Guns now are used in hunting instead of the traditional bow and arrow of former times. 262 224 [462] [177]

A man's work consists of house building or at least performing the heavy labor such as cutting and setting posts and beams, tending his fields, dressing hides, and looking after his range cattle and horses. 462

HANDICRAFTS

The Havasupai make basketry in two techniques, twining and coiling. Baskets are the most important domestic utensils and in each household may be found several burden baskets, food trays, and one or two water bottles. When not occupied with her other duties, the Havasupai woman is generally engaged in her craft. 285 415 [482] 462

The best material for making twined baskets is the acacia, generally gathered green. If gathered dry, or dried and stored, the twigs are either soaked in water or buried in wet soil two or three days before using. Cottonwood and willow are used. [824]

The leaves are stripped from the twigs by drawing them through the hand protected by a piece of cloth. The twigs are split in three parts, beginning at the tip, by using the teeth and both hands. Only the two outside strips are used, the inside being discarded. A knife is used to scrape the strips to uniform thickness. To begin weaving, two pairs of twigs are held so they cross at right angles at their midpoints. A weft strip is bound two or three times across the junction and the ends are woven alternately over and under the ribs. The weaving is in clock-wise direction, with the right side (the inside of parching trays and the outside of most other baskets) of the basket toward the weaver. After twining twice around the four ribs, another rib is inserted and caught into the twin stitch. The end of the twig is softened in water so that it can be drawn in tightly by the weft. The butt of the twig protrudes on the under side of the basket beyond the stitch by which it is held. As the weaving progresses new warps are inserted, always regularly spaced. As a rule baskets begin with diagonal twining, the weft crossing two warps at a time. Some begin with simple twining, the weft crossing single ribs, but soon change to diagonal weave. Diagonal twining is much more rapid. In either case the warps are inserted one at a time, but weft elements are twined in pairs, new strips are added singly.

To finish the edge of trays, burden baskets, or water bottles, the warp ends that protrude beyond the woven fabric are split and thinned, then bent to lie along the rim, and bound together with a stitch.

The burden baskets and water bottles are decorated with simple designs made by introducing different varieties of twining and with black from the Martynia or devil's claw. They have loops for carrying. The 285 415 531 [482]

THE HAVASUPAI

The father and sons work their undivided fields with the assist- 573
ance of their wives; the new son-in-law works with his wife's family 591
until he breaks away to return to his father's house.

In the village there are probably fifty camps or family units. In 621
each household are usually found some unattached relatives of close 591
degree—widows, widowers or orphans. The orphans are cared for by 736
the relatives of either parent, seemingly without prejudice to the interests of the children of the relatives on the other side of the family.

A council of comparatively recent origin, settles most disputes and 624
the tribe acknowledges three chiefs: Manakaja, the old chief, Watch- [177
omidja, the Big Chief, and Big Jim, the Little Chief. Chieftainship is 623]
inherited, but there are also men who have become chiefs through 626
prestige and renown, or both. The principal duties of the chief are giving advice and admonitions. They tell their people how to act, especially the young men and women. The men are admonished to work hard, farm, dress skins, and hunt, while the women make baskets, cook, plant, and gather wild food. They are told not to be lazy, to take good care of their families, their fields, and their stock.

It is the duty of the chiefs to speak to the people on appropriate 624
occasions such as dances, gatherings to discuss important tribal matters, at death ceremonies, or informally at sweat lodges. The advice of the Big Chief seems to carry more weight than that of the others, in part because of his position, but largely because he is a stronger character. Personal qualifications are an important factor in chieftain- [156
ship. A chief must be industrious, even tempered, and dignified; a son who does not display such qualities has little chance of becoming a chief.

Marriages are now monogamous, though polygamy once existed. 177
The only restriction is that blood relations may not marry. The young 595
people usually arrange their own marriages though parental consent 582
is sought. Gifts are still interchanged. 584

There is no taboo between a husband or wife and the parents-in- 601
law. A man may talk freely to his wife's parents or a woman may 606
talk freely to her husband's parents. However, neither husband nor wife address the parents-in-law by name. The wife has no relationship term to apply to them. She may use their names by way of reference. A woman when speaking to her husband may say *mamadjidjia*, your mother, *mamadjitaiha*, your father, or *humagatum*, your parents. The word *ginyega* is used by a man when referring to the parents of his wife, though not when talking to them.

Divorce in the early days was granted only on the grounds of un- 177
faithfulness, but today the Havasupai observe white man's laws gov- 586
erning marriage and divorce. A widow is expected to remain in 768
mourning six months or longer before she marries again, although 765
some marry in three or four months.

For about a month before the birth of baby the expectant mother 262
and her husband must observe numerous taboos. They must not eat 843
meat and the woman alone must not eat salty foods. During this time she must use a stick to scratch herself. These restrictions are relaxed a month after delivery. Failure to observe these rules will result in complications at birth, it is believed.

There is no particular ceremony following the birth of a baby. 852
The infant is placed on the cradle board as soon as it is washed. The 854
old women attendants mould the head, face, and limbs of the new born child lightly with the finger tips; point the chin, rub the bridge of the nose, and massage the gums. They do this every time the child is bathed. Babies are kept on the cradle board most of the time until they are able to walk. The Havasupai woman usually carries the cradle [482]
board in her arms rather than on her back.

Generally a child is named when it begins to play about and takes 553

262 are all eaten raw, or dried, and prepared
252 for food by stewing. Squashes are either boiled or roasted, the latter most skillfully, the seeds being carefully preserved, dried, and made into food, much the same as the sunflower seeds.

263 A remarkable and at first unpleasant characteristic of all these foods is the absence of salt from them. Sometimes the corn preparations are sweetened by chewing and fermentation. The somewhat sweet fruit of the datila, or Spanish bayonet, is rendered sweeter by a
[251] like process, the pulp thus formed being spread out on large, closely-woven splint screens, and dried in sheets, often several feet in extent, though less than half an inch in thickness. The mescal of the
252 more southern tribes, the ak-na of the Zuñis, is prepared in its greatest perfection by the Ha-va-su-paí from the heart and inner leaves of the agave, or century plant. It is gathered by the women in great quantities throughout the gorges and upon the terraces of the cañon, and
● [482] transported in large baskets, strapped across their foreheads, to the gravelly beds of dry streams. Pits being dug in the gravel and fuel collected by the men, huge fires are built in the excavations, and kept burning for several hours. The embers are then drawn forth, the pits lined with leaves and grasses, and the agave thrown in, a layer like the lining then being added, and the heated gravel and embers heaped above. These
[527] burnings are occasions of great festivity and merry-making. When taken out, the agave is easily made into pulp, and dried, either on the flat rock surfaces or as is the fruit of the datila.

221 It is a remarkable fact that the Ha-
262 va-su-paí, possessing neither cattle nor sheep, are almost exclusively vegetarians during the summer months. With the beginning of winter, however, the tribe, almost as a unit, repairs to the surrounding plains, where they subsist
262 chiefly on the flesh of the game they kill. This is made ready for consump-

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262 tion variously, — by roasting, broiling, frying, baking, boiling, or drying. No part of the animal is wasted; blood, intestines, even visceral glands and organs, as well as the half-digested vegetable matter from the stomachs of the deer, antelope, and rabbit, being utilized as food. The liver is frequently eaten raw, immediately on the death of the animal.

412 Their implements for preparing food are few. The muller, or rubbing-stone, and the metlatl, or mill, of sandstone or volcanic rock, and various in size, flat transversely, and concave from end to end, placed upon a skin, are used for grinding; while large, round, closely-woven trays of basket work, coated with mineral asphaltum and earth, make excellent roasting pans. Earthen pots and [439] brass kettles, procured by barter with 415 the Moquis, serve as cooking vessels. Moqui bowls and native baskets are used in serving food, which is dipped [264] from the cooking pot with large ladles of horn or wood, and eaten either with the fingers, flat sticks, or little wooden 415 and horn spoons. Large panniers, slung over the forehead or shoulders with a 482 broad strap of raw-hide, are used in collecting food, or carrying it to and from the distant granaries; and certain huge, small-necked, round-bottomed basket bottles serve as canteens and water-jars.

412 Knives of band-iron, occasionally of good [177] steel, have displaced, save in rare instances, the original flint instruments, as have also chisel-shaped fragments of iron or steel, inserted into wooden handles, like primitive stone axes, supplanted the scarcely ruder prehistoric implement. Sharpened bone or hard-wood splints and bits of stray wire make awls and needles; and sharp bone, or chipped discs of rock, their skin-dressers. Various stone hammers and mauls, with flat stones used about the fire, complete the limited yet all-sufficient list of Ha-va-su-pai household appliances.

In their agricultural operations and in the excavation of mescal pits, rude hoes,

/100 cont. / LIKE THE FIGS, THEIR
177 peaches and apricots were derived from the whites, but so long
245 ago that they are now regarded as native.

291 The aboriginal dress of the Havasupai was simple and rather distinctive. The one arbitrary garment for the men was, of course, the breech-cloth, all additions to which were an
[554] evidence of wealth and position. For the Havasupai shirt the foundation was a large deerskin with a hole cut in the middle, like a poncho. This was loosely fastened together at the sides and held close to the body with a belt. Stitched to it were loose, baggy sleeves, open under the arms as far as the elbows. Shoulder, sleeve, and side seams were freely decorated with deerskin fringe. The leggings, close fitting and fringed at the sides, reached to the hips and were met below with high-topped moccasins. A full suit required five good-sized deerskins. The
[302] men tied their long hair in a knot at the back of the head and cut the fore part in a low bang over the eyes. The principal garment of the women, which reached a little below the knees, consisted of two deerskins sewn together at the top and sides and with openings left for head and arms. It was liberally ornamented with fringe, worn sleeveless, and belted at the waist. Their boot-legged moccasins reached to the knees. The hair, cut in a
[302] bang over the eyes, hung loose and unkempt.

285 The arts of the Havasupai are seen at their best in the
[439] basketry. Many of their tray-shaped baskets are used for barter with neighboring tribes, who know them as "Coconino." The
[415] same form, coated with earth, is used as a cooking utensil,
[251] water being boiled in them by the use of heated stones; the water bottle also is of basket-work, coated with piñon gum. A
● 482 coarsely woven, cone-shaped burden /101/ basket is carried on the back, supported by a strap passing across the forehead.
321 Spoons and small utensils were formerly made from mountain-
415 sheep horn.

622 Chieftainship is hereditary, the voice of the tribe determining which of the male relatives of the last incumbent is best fitted to rule. The present chief is Wimái, who succeeded Kóhat, familiarly known as "Navaho." Kóhat was considered by all who knew him to be a man of unusual strength of character, broad